

What is claimed is:

1. A route monitor control system comprising the steps of:

a plurality of OAM cell handlers (OCHs);

a plurality of virtual path handlers (VPHs);

5 a plurality of virtual channel handlers
(VCHs);

trunks; and

a control unit which:

issues an OAM (operation and maintenance)

10 cell send instruction to a specific one of said
plurality of OAM cell handlers,

controls said specific OAM cell handler to
carry out a loop back control to at least one of said
virtual path handler, said virtual channel handler,

15 and said trunk, which are associated with said
specific OAM cell handler, as an object unit in
response to said OAM cell send instruction, and when
said specific OAM cell handler sends out an OAM cell
from said specific OAM cell handler to said object
20 unit in response to said OAM cell send instruction,
determines a fault position based on returning or non-
returning of the OAM cell from said object unit to
said specific OAM cell handler.

2. The route monitor control system according to
claim 1, wherein said control unit carries out a

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5 determining fault position.

5 and said control unit are contained in an ATM

cell handler.

10 in response to said OAM cell send instruction,

determines the fault position based on returning or

non-returning of each of the OAM cells from said object unit to said specific OAM cell handler.

6. The route monitor control system according to claim 1, wherein said control unit carries out the issuing operation, the loop back control and the determining operation while changing said specific OAM cell handler among said plurality of OAM cell handlers.

7. A route monitor control method comprising the steps of:

(a) issuing an OAM (operation and maintenance) cell send instruction to a specific one of a plurality of OAM cell handlers (OCHs);

(b) carrying out a loop back control to at least one of a virtual path handler (VPH), a virtual channel handler (VCH), and a trunk, which are associated with said specific OAM cell handler, as an object unit in response to said OAM cell send instruction;

(c) sending out an OAM cell from said specific OAM cell handler to said object unit in response to said OAM cell send instruction; and

(d) determining a fault position based on returning or non-returning of the OAM cell from said object unit to said specific OAM cell handler.

8. The route monitor control method according to claim 7, further comprising the step of:

carrying out a route switching operation for fault avoidance based on the determining fault

5 position.

9. The route monitor control method according to claim 7, wherein said object unit is contained in an ATM (asynchronous transfer mode) switching apparatus.

10. The route monitor control method according to claim 7, wherein said virtual path handler (VPH), said virtual channel handler (VCH), and said trunk, and said specific OAM cell handler are contained in an ATM
5 (asynchronous transfer mode) switching apparatus.

11. The route monitor control method according to claim 7, wherein said (a) issuing step comprises the step of:

periodically issuing said OAM cell send
5 instruction to said specific OAM cell handler.

12. The route monitor control method according to claim 7, wherein said (b) carrying out step comprises the step of:

carrying out said loop back control to all of
5 said virtual path handler (VPH), said virtual channel

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handler (VCH), and said trunk as said object units in response to said OAM cell send instruction, and

said (c) sending out step comprises the step of:

- 10 sending out said OAM cells from said specific OAM cell handler to said object units in response to said OAM cell send instruction.

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